



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*Application No.:* 10/666,901

*Applicant:* Nicholls *et al.*

*Examiner:* Daniel H. Miller

*Filed:* September 18, 2003

*Art Unit:* 1775

*For:* ARTIFICIAL TURF BACKING

**DECLARATION OF DR. PHIL STRICKLEN UNDER 37 C.F.R. § 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Phil Stricklen, hereby declare that:

1. I am the Director of Research and Development for Sportex Construction Services, Inc., an affiliate of the Applicant. My educational and work background are set forth in the attached resume.

2. This declaration is made in support of and is submitted with the Reply Under 37 C.F.R. 1.111 in response to the Office Action wherein the Examiner rejected claims 1-2, 4-5, 7, 9 and 11 of the above application on the grounds of "obviousness" under 35 U.S.C. §103.

3. This declaration will address a number of factors relevant to the issue of obviousness of the claimed invention, including unexpected results and commercial success.

4. I have Ph. D. in Inorganic Chemistry and have twenty years of experience in developing new polymers, fibers, and synthetic turf products as an individual contributor, team member, and group supervisor.

5. As such, I am familiar with artificial turf, including the tufting of and backings used in artificial turf systems.

6. Conventional artificial turf is manufactured in a process that involves tufting fibers or ribbons through one or more layers of backing using a conventional tufting machine. These conventional tufting machines allow for the setting of the "gauge" or distance between the rows of needles that tuft the ribbon through the backing. The gauge determines the distance between needles and therefore dictates the spacing between the rows of tufted ribbons. In conventional tufting machines, those gauges are generally  $\frac{3}{16}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{3}{4}$ ",  $\frac{5}{8}$ " or  $\frac{5}{16}$ ". Accordingly, it is known that this spacing can range between  $\frac{3}{16}$  and  $2\frac{1}{2}$  inches.

7. The rate at which the backing is fed through the tufting machine will dictate the distance between each needle punch along a row, which in turn dictates the spacing between the columns of tufted fibers. In conventional systems, the spacing is generally  $\frac{1}{5}$ ". The spacing can generally range from  $\frac{1}{8}$ " to  $\frac{1}{2}$ ".

8. Conventional turf was provided with the spacing between the rows of fibers substantially greater than the spacing between the columns of fibers.

9. Applicant's patent application calls for artificial turf having the space in between the rows and columns substantially the same. This ratio of spacing was contrary to conventional wisdom in the industry.

10. In addition, the substantially equal spacing of rows and columns produces a more consistent playing surface, a result which was unexpected.

11. This unexpected and desirable increased playability over conventional turf systems has resulted in commercial success for the product.

12. Applicant's claimed technology was incorporated into and first used in a field in 2003. Since its introduction into the marketplace in 2003, this product has enjoyed tremendous commercial success, with over 300 fields installed and an estimated North American market share for 2006 of about 18%.

13. In my opinion, this success is a function of the claimed technology and the unprecedented and unexpected type of playing surface it provides. In my opinion, the commercial success of these products is due to the better overall playability that is achieved by utilization of the claimed technology. The equally spaced rows and columns provide a more consistent playing surface, both laterally and longitudinally.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified patent application.

Dated: 7/27/07

Phil M. Stricklen

Phil Stricklen

Doc # 01-1671511



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## Dr. Phil M. Stricklen

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### QUALIFICATIONS

Twenty years of experience in developing new polymers, fibers, and synthetic turf products as an individual contributor, team member, and group supervisor.

- Proven record of new product development
- Strong background in polymers, fibers, and turf
- Understanding of the physics of athlete-turf interactions
- Work well as interface between manufacturing, sales, and customers
- Extensive knowledge of polymer additives

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### EXPERIENCE

#### Sportexe, Calhoun Georgia

2005-Present *Director of R&D*

Directed the R&D and QC functions of the 2<sup>nd</sup> largest synthetic turf company in North America. Built and equipped the R&D/QC lab in Calhoun, GA. Established QC procedures that reduced off quality goods arriving in the field by 75%. Developed and successfully tested products which were certified by FIFA for the highest level soccer matches. Served as technical representative for the Synthetic Turf Council.

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#### Advanced Fibers, Dalton, GA

2004 – 2005 *Director of R&D*

Developed a product line of texturized and straight nylon fibers for the synthetic turf industry. Developed new fiber products for athletic fields and landscape applications. Established product specs and raw material specs

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#### SRI Sports, Dalton, GA

2001 – 2004 *Director of R&D*

Directed New Product Development in turf and track products. Worked with standards groups (ASTM, FIFA, UEFA, and STC) to promote improved sports surface products in the U.S. and Europe. Introduced 6 new products in less than 2 years.

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#### American Fibers and Yarns, Bainbridge, GA

1999 – 2001 *Manager of Technology*

Manage the Technology Group, which provides technical input to Marketing, Tech Service, and Manufacturing. Managed raw material chain.

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**Amoco Fabrics and Fibers, Austell, GA**

1996-1999 *Research Associate*

Developed new products for the Fibers and Yarns product lines. Responsible for protecting current products from threats of flammability regulations.

- Developed flame retarded polypropylene fiber products for hospital and contract markets.
- Coordinated the pilot plant development of a highly resilient polypropylene yarn for automotive carpet applications
- Served as chairman of the synthetic fiber industry group which monitors and takes action on flammability regulations which may affect synthetic fibers

1994-1996 *Research Supervisor, Raw Materials*

Supervised a group of five exempts and four technicians responsible for developing resins, pigments, stabilizers, and spin finishes for all product lines.

- Coordinated the effort to consolidate pigments to the low cost suppliers for a cost savings of \$2 MM
- Standardized the color measurement systems at all of the manufacturing locations

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**Phillips Fibers Corp, Greenville, SC**

1992-1994 *Research Specialist*

Developed stabilization packages for automotive and outdoor applications for polypropylene fibers and yarns.

- Optimized the cost/performance for each stabilizer package for automotive staple fiber products
- Screened flame retardant additives to select a system which led to the development of light stable, flame retarded polypropylene fibers

**Phillips Petroleum Co., Bartlesville, OK**

1988-1992 *Supervisor, Stereoregular Polymers*

Supervised chemists and chemical engineers doing bench and pilot scale development of new stereoregular polyolefins and polymerization processes

- Developed a commercial process for making poly-4-methyl-1-pentene with potential for a \$100MM/year business
- Developed a catalyst and process for making poly-3-methyl-1-butene, a high melting polyolefin

1979-1988 *Research and Senior Research Chemist*

Bench scale development of catalyst and process conditions for making new and improved polyolefin resins. Tailored process conditions to create specific resins for targeted market segments.

- Removed the induction period from chromium based catalyst for polymerizing ethylene, increasing the efficiency of that process by 20%.
- Invented a metallocene catalyst which produces bimodal molecular weight distribution polymers for thermoforming and film applications

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## EDUCATION

B.S. in Chemistry, With Honors, University of Arkansas, 1974  
Ph. D. in Inorganic Chemistry, Iowa State University, 1979

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## ASSOCIATIONS

American Chemical Society  
Society of Plastics Engineers  
National Fire Protection Association

ASTM  
FIFA, UEFA, FIH